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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,633	01/27/2004	Richard William Worrall	WORRALL - SHARP	3766

7590 08/24/2005  
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EXAMINER

RUSSELL, CHRISTINA MARIE

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/766,633

Applicant(s)

WORRALL ET AL.

Examiner

Christina Russell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 1/27/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5, 6 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by the US patent to Rogers (6,080,925).
4. In terms of claim 1, Rogers teaches a method for determining the correct and appropriate fingering for a given musical instrument comprising a memory or storage device, and inputting means, an output means and a means for calculating the optimum

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and alternate fingering of different musical data for an interested party (see column 2, lines 3-9, 18-22, 38-40, 57-64, column 3, lines 51-52, column 4, lines 44-49, column 5, lines 62-65 and column 8, lines 27-42).

5. As for claim 3, Rogers teaches the said fingering information displayed as tablature information (see column 6, lines 28-38 and column 8, lines 45-50).

6. As for claims 5 and 6, Rogers teaches the said alternate fingering as easier to perform for the use in such performances as solos and the alternate fingering is such that it provides the ability to perform in a preferred tonal style as designated by the soloist and his particular preferences (see column 2, lines 38-41, column 4, lines 39-49 and column 7, lines 19-20).

7. As for claim 20, the same logic used to reject claim one can be used here. Rogers teaches a machine, that performs the method from claim 1, that comprises a memory or storage, input and output means and a processor for calculating the different fingerings for an interested party or musician (see column 2, lines 56-64).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of the US patent to Hesnan (5,639,977).

10. In terms of claim 2, Rogers teaches all of the claimed elements, as disclosed above relating to claim one, except for said fingering information comprising of which finger should be placed where. Hesnan teaches a tablature fingering information display with additional finger position indicators (see column 6, lines 15-21). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate numbers into the already present circles displayed on the large 12 fret display screen of Rogers representing the recommended fingers to use in each position.

11. In terms of claim 4, Rogers teaches all of the claimed elements, as disclosed above relating to claim one, except for the recommended or optimum fingering movement being minimized or easier for those musicians at the beginner level. Hesnan teaches such convenience for beginners (see column 5, lines 24-48). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to narrow down the chord and scale display of Rogers to make it simpler for those just starting to play to use the device to find the fingerings that are most appropriate for their skill level.

12. Claims 7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of the US patent application publication to Sitrick et al. (2003/0110925).

13. In terms of claim 7, 13 and 14, Rogers teaches all of the claimed elements, as disclosed above relating to claim one, except for the input means being either a musical score or musical piece, a scanner to scan in a paper copy of a musical piece, or a

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microphone to capture sounds and convert them to digital data. Sitrick et al. does provide input means for all three of these devices (see figure 2, page 1, paragraph 10, page 4, paragraph 53 and page 11, paragraph 99). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate additional input means into the available input ports of the device to Rogers.

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of the US patent to Michero (6,331,668).

15. Rogers teaches all of the claimed elements, as disclosed above relating to claim one, except for the inputted data comprises of tablature information. Michero provides this type of input in his similar musical reference device (see column 5, line 61 – column 6, line 4). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to again incorporate this type of input into the similar reference device of Rogers and configure one of his dials to handle such input.

16. Claims 9-12, 15, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of the US patent to Fukada (6,107,557).

17. In terms of claim 9-12, Rogers teaches all of the claimed elements, as disclosed above relating to claim one, except for the input means being a data storage device, a computer network, a MIDI device or a CPU program. Fukada teaches all of these input means in his related chord display device (see column 1, line 61 - column 2, line 3, column 9, lines 2-5, 8-11, and 30-43). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to again incorporate these types of inputs into

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the similar display device of Rogers and configure one of his dials to handle such input means.

18. In terms of claim 15, 16 and 19, Rogers teaches all of the claimed elements, as disclosed above relating to claim one, except for the output means of the device being a data storage device, a computer network or a performance of the displayed fingering information. Fukada teaches, in relation to his input devices, the reverse use of his storage device and computer network, in addition to the ability to perform the given outputted data (see column 1, lines 48-50, column 2, lines 7-11, 27-30 and column 9, lines 30-35). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate such output means into the similar display device of Rogers, by integrating them into the available output pins. Also, it would be obvious that if data can be inputted from a data storage device or a network that that data can therefore be outputted back into those devices.

19. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of the US patent to Tice et al. (6,751,439).

20. Rogers teaches all of the claimed elements, as disclosed above relating to claim one, except for the output means as either a printer or computer monitor. Tice et al. provides this type of output means in a similar musical teaching device (see Figure 1 and column 4, lines 6-10). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to again incorporate these types of output devices into the similar teaching device of Rogers. It would have been obvious to use the display means, or monitor, of a personal computer to display the resulting data instead of a

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smaller LCD screen by linking Rogers processor through one of the output pins and also to print the displayed data by again linking Rogers device to a printing means through an output pin.

### ***Conclusion***

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents to Owen (5,585,583) and Weiss et al. (5,270,475) and the US patent application publication to Okubo et al. (2201/0003944).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Russell whose telephone number is 571-272-4350. The examiner can normally be reached on Mon-Fri, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CR  
08/18/2005

A handwritten signature in black ink, appearing to read 'DM', is positioned above the printed name and title.

DAVID MARTIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800